Response of Wisconsin Power and Light Company to

The Public Service Commission of Wisconsin Data Request No. 1.23

Docket Number: 05-CE-137

Date of Request: January 29, 2009

Information Requested By: Ken Detmer

Date Responded: February 16, 2009

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Witness: (If other than Author)

Data Request No. 1.23:

Describe how the fleet-wide plan addresses PM₁₀ and/or PM_{2.5} emissions.

Note:

While this project is part of WPL's fleet-wide air emissions control plan, WPL can only comply with RACT by reducing NOx emissions at the Edgewater facility.

Response:

Both PM_{10} and primary $PM_{2.5}$ will be reduced by the addition of dry scrubbers including bag houses needed to support their operation at the units identified in the emissions control plan. Secondary $PM_{2.5}$ will also be reduced through the reductions of NO_x and SO_2 emissions resulting from the combustion optimization, selective non-catalytic reduction (SNCR), rich reagent injection (RRI) and selective catalytic reduction (SCR) as well as scrubber projects included in the plan. NO_x and SO_2 emissions are precursors to the formation of $PM_{2.5}$ in the atmosphere. The selection of SO_2 control systems considers the possible impact of increased PM_{10} and primary $PM_{2.5}$ emissions with dry scrubbers providing better performance regarding the emission of these pollutants as well as acid gases such as sulfuric acid mist.